BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE INVESTMENT IN SELECTIVE CATALYTIC REDUCTION CONTROLS ON JIM BRIDGER UNITS 3 AND 4.	)	CASE NO. IPC-E-13-16

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

LISA A. GROW

Q. Please state your name and business address.

A. My name is Lisa A. Grow and my business address is 1221 West Idaho Street, Boise, Idaho 83702.

Q. By whom are you employed and in what capacity?

A. I am employed by Idaho Power Company ("Idaho Power" or "Company") as the Senior Vice President of Power Supply.

Q. Please describe your educational background and work experience with Idaho Power.

A. I graduated from the University of Idaho in 1987 with a Bachelor of Science degree in Electrical Engineering. I received an Executive Masters of Business Administration from Boise State University in 2008. I began my career at Idaho Power after graduating from the University of Idaho in 1987, and have held several engineering positions before moving into management in 2005. In 2005, I was named Vice President of Delivery Engineering and Operations. In 2009, I was appointed to my current position as Senior Vice President of Power Supply. My current responsibilities include overseeing the operation and maintenance of Idaho Power's generation fleet, power plant engineering and construction, environmental affairs, water management, power supply planning, and wholesale electricity and gas operations. I also oversee Idaho Power's load serving operations, which

is responsible for delivering reliable energy to customers through the Company's grid using its generation portfolio and system purchases.

Q. What is the Company's request in this proceeding?

A. The Company is requesting that the Idaho Public Utilities Commission ("Commission") issue a Certificate of Public Convenience and Necessity ("CPCN") and provide binding ratemaking treatment under *Idaho Code* § 61-541 related to the Selective Catalytic Reduction ("SCR") investments planned for Jim Bridger Units 3 and 4 ("Bridger SCRs").

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to: (1) provide an overview of the Company's case, (2) describe the important role that the Jim Bridger power plant ("Jim Bridger Plant") serves in maintaining the diversity and low cost structure of the Company's generation resource portfolio, (3) provide the Commission with an understanding of the regulations and analyses that led to the Company's plans to commit to the investment in the Bridger SCRs, and (4) explain the Company's rationale for requesting a CPCN and binding ratemaking treatment in this proceeding.

I. OVERVIEW

Q. Please provide an overview of the Company's case.

A. In this case, the Company will support its request for a CPCN and associated ratemaking treatment related to the investment in the Bridger SCRs by demonstrating that the SCR investment is prudent, necessary, and in the best interests of the Company and its customers.

Mr. Tom Harvey, Joint Projects Manager, will present testimony that describes in detail the federal and state emissions regulations that require the Bridger SCRs. Mr. Harvey will also describe the analyses that were performed to determine that the Bridger SCRs represent the most cost-effective retrofit technology that will allow the Jim Bridger Plant to operate in compliance with those emissions regulations. Lastly, Mr. Harvey will provide a description of the Company's economic analysis that determined that the investment in the Bridger SCRs represents the lowest cost and least risk option of serving future customer demands.

Mr. Michael J. Youngblood, Manager of Regulatory Projects, will present testimony that discusses the portfolio analyses performed in the 2013 Integrated Resource Plan ("IRP") which supports the continued operation of the Jim Bridger Plant. Mr. Youngblood will

also present the cost estimates for the Bridger SCRs and the estimated revenue requirement impact of including that investment in the Company's rate base. Finally, Mr. Youngblood will discuss how binding ratemaking treatment is requested to operate in this case.

Q. What is your role in the Company's decision-making process regarding the investment in the Bridger SCRs?

A. As the Senior Vice President of Power Supply, I oversee the Joint Projects and Water and Resource Planning groups. These groups were responsible for preparing the economic analyses related to the Bridger SCRs as well as the 2013 IRP. Under my leadership, the Joint Projects group manages the Company's ownership interest in the Jim Bridger Plant; therefore, I am the officer responsible for the Jim Bridger Plant and the SCR project. Also, I am the officer that oversees the reliable operation of Idaho Power's system and electric generation portfolio.

Over the past several years, I have had regular discussions with Mr. Harvey regarding the regulations, financial/economic analyses, and engineering studies related to the need and viability of the Bridger SCRs.

II. THE ROLE OF THE JIM BRIDGER PLANT IN THE COMPANY'S GENERATION RESOURCE PORTFOLIO

Q. Please describe Idaho Power's current portfolio of generation resources.

A. Idaho Power's current resource portfolio consists of a diverse mix of low-cost generation types totaling nearly 3,600 megawatts ("MW") of nameplate capacity. Idaho Power's resource portfolio is anchored by the Company's hydroelectric system consisting of 17 projects located on the Snake River and its tributaries. These 17 projects provide 1,709 MW of nameplate capacity and approximately 8.4 million megawatt-hours ("MWh") annually under median water conditions. Idaho Power is the non-operating partner in three coal-fired power plants that provide the Company with 1,119 MW of nameplate capacity. Idaho Power's share of these resources includes the Jim Bridger Plant at 771 MW, the North Valmy power plant ("Valmy") at 284 MW, and the Boardman power plant ("Boardman") at 64 MW. Idaho Power's resource portfolio also includes three natural gas-fired combustion turbine plants. Langley Gulch, a combined-cycle plant, provides 318 MW of nameplate capacity. The Company's two simple-cycle "peaker" plants, the Danskin power plant and Bennett Mountain plant, provide a combined 444 MW of nameplate capacity. Idaho Power also owns a small diesel-fired

generator located in Salmon, Idaho, that provides approximately 5 MW of nameplate capacity.

Q. In addition to energy from its own resources, does Idaho Power serve its customer energy demands from other generation resource types?

A. Yes. The Company currently has power purchase agreements with one wind project and two geothermal projects. Elkhorn Valley wind project, located in northeastern Oregon, provides 101 MW of nameplate wind generation. The Raft River geothermal power plant, located in southern Idaho, provides 13 MW of nameplate capacity. The Neal Hot Springs geothermal project, located in eastern Oregon, provides 22 MW of nameplate capacity.

Idaho Power also contracts with Qualifying Facilities for energy purchases under the Public Utility Regulatory Policies Act of 1978 ("PURPA"). As of May 31, 2013, Idaho Power had 103 PURPA contracts with independent developers for approximately 784 MW of nameplate capacity. The PURPA generation facilities consist of low-head hydroelectric projects on various irrigation canals, cogeneration projects at industrial facilities, wind projects, anaerobic digesters, landfill gas, wood-burning facilities, and various other small, renewable-power projects. There is one additional PURPA project under

contract scheduled to come on-line by December 2013 with a nameplate capacity of 4.7 MW.

Q. How does a diverse generation portfolio benefit Idaho Power and its customers?

A. Idaho Power has learned from nearly a century of operations that energy diversity means energy security. The Company's resource portfolio is among the most diverse and therefore secure in the nation. The Company leverages its hydro, coal, and natural gas resources to provide dependable "baseload" energy to customers, along with purchased renewable resources and a robust set of energy efficiency programs. It is the same principle as maintaining a diversified investment portfolio to manage risk; a variety of resources minimizes the risk that comes with having all your eggs in one basket.

Q. What value do coal plants like the Jim Bridger Plant add to the Company's resource portfolio?

A. Clean, renewable hydropower remains the lowest cost foundation of Idaho Power's resource portfolio, providing for more than half of its customers' energy needs in most years. However, in low water years like the one southern Idaho is experiencing in 2013, water can be scarce during summer months when demand reaches its peak. Wind and solar cannot always satisfy the resulting generation shortfall. For example, last July, Idaho Power customers

set a record for electricity demand. At that time, Idaho Power had 600 MW of wind capacity connected to its system. Unfortunately, on that hot, calm day the wind turbines were only able to generate about 14 MW when customer demand was peaking in the late afternoon. It is at those times that the Company's reliable, low-cost coal resources, like the Jim Bridger Plant, can be dispatched to help meet customer demands. The Jim Bridger Plant not only provides highly valuable capacity during periods of peak demand, but also low cost and dependable baseload energy.

Q. Please describe the Company's Jim Bridger Plant.

A. Idaho Power owns one-third of the Jim Bridger coal-fired power plant located near Rock Springs, Wyoming. The plant consists of four generating units. After adjustment for scheduled maintenance periods and estimated forced outages, the annual energy generating capability of Idaho Power's share of the plant is approximately 625 average megawatts. PacifiCorp (formerly known as Pacific Power & Light Company) has two-thirds ownership and is the operator of the Jim Bridger Plant.

Q. How does the variable cost of operating the Jim Bridger Plant compare to the Company's other resource alternatives?

A. The Jim Bridger Plant has the lowest dispatch cost of Idaho Power's entire thermal generation fleet. Based on the Company's May 2013 Operating Plan, the Jim Bridger Plant's average dispatch cost is expected to be [redacted]/MWh over the period of June 2013 through May 2014. For comparison purposes, the average dispatch cost for the remaining baseload thermal fleet is expected to be [redacted]/MWh over the same period.

Q. When fixed plant investment is also considered, does the Jim Bridger Plant continue to rank among the Company's lowest cost resources?

A. Yes. The Jim Bridger Plant is also the Company's lowest cost thermal resource from an installed cost of nameplate capacity perspective. Based on actual 2012 financial information, the total cost of nameplate capacity (excluding fuel and per-unit energy taxes) for the Jim Bridger Plant was $8.24/kilowatt ("kW")/month. For comparison purposes, the average 2012 installed cost of nameplate capacity for the remaining baseload thermal fleet was $13.39/kW/month.

III. REQUIREMENTS AND ECONOMIC ANALYSES DEMONSTRATING THE NEED FOR THE BRIDGER SCRS

Q. Please describe the emissions control investments planned at Jim Bridger Units 3 and 4 for which the Company is seeking a CPCN.

A. The emissions control investments proposed in this CPCN are SCR systems and associated ancillary equipment for Jim Bridger Units 3 and 4. These emissions control equipment investments will result in the reduction of nitrogen oxide (NO_X) emissions from Jim Bridger Units 3 and 4 in compliance with already binding state and proposed federal emissions requirements.

Q. Which federal and state emissions requirements are the Bridger SCRs intended to satisfy?

A. The Bridger SCRs are required to comply with existing Regional Haze Rules and are also required to comply with stand-alone requirements in the Wyoming State Implementation Plan ("SIP"). Mr. Harvey describes these emissions requirements in greater detail in his testimony.

Q. When must the SCRs be installed at Jim Bridger Units 3 and 4 in order to successfully comply with the federal and state emissions regulations?

A. The BART Appeal Settlement Agreement and the Wyoming Regional Haze SIP require the installation of SCR on Unit 3 by the end of 2015 and on Unit 4 by the end of 2016. On May 23, 2013, the United States Environmental Protection Agency ("EPA") proposed to approve the Wyoming SIP for installation of SCR on Jim Bridger Units 3 and 4 in 2015 and 2016, respectively, as outlined in the SIP.

The EPA has indicated it will sign a notice of final rulemaking on November 21, 2013, making these emission reduction requirements at Jim Bridger Units 3 and 4 federally enforceable as well.

Q. What would result if the Company did not make these investments within the compliance time frame?

A. If the environmental upgrades are not installed within the time frame given by the EPA, Idaho Power would be forced to stop generating from these units. Unlawfully operating the units in violation of federal and state regulations is **not** an option for Idaho Power.

Q. As a minority partner in the Jim Bridger Plant, what is the Company's decision authority regarding projects like the Bridger SCRs?

A. Several provisions in the agreement for the operation of the Jim Bridger Project Between Idaho Power Company and Pacific Power & Light Company ("Operation Agreement") address Idaho Power's payment obligations related to operating expenses, capital additions, and maintenance costs at the Jim Bridger Plant. Some of those provisions set forth below.

Article 14 of the Operation Agreement, *Capital Additions*, states:

> At any time that either party shall determine a capital addition, improvement or betterment is required

> or useful (other than replacements budgeted under the maintenance and repair provisions of this Agreement), the Operator shall have prepared a cost estimate of such capital addition and, if the parties agree, proceed with construction and installation, the costs thereof to be paid one-third by Idaho and two-thirds by Pacific unless otherwise agreed to at the time.

Articles 5 and 6 of the Operation Agreement, *Expense of Operation, Maintenance, Repairs, and Replacements and Payment of Operating Expenses*, also contain sections related to the payment of costs at the Jim Bridger Plant. Section 5.1, for example, outlines certain operating expenses attributable to the Jim Bridger Plant ("Operating Expenses"). Section 5.4 then establishes a process for the review and approval of the budget as follows:

> On or before October 1 of each year, Pacific shall submit to Idaho a budget of its estimate of Operating Expenses by calendar months for the calendar year beginning January 1 next following. Such budget shall be subject to approval by Idaho, which approval shall not unreasonably be withheld. If such approval is not given by November 1 in any such year, the parties shall agree upon a revised budget not later than December 1 of such year. Each budget shall include such items of expenditures for replacement and repair of Project facilities as are normal to projects of a similar character and shall provide an adequate contingency item for

> emergency repairs and replacements. Pacific will submit any budget revisions which changes the budget by 10% or more during any calendar year which Idaho shall promptly consider and which shall similarly be subject to approval by Idaho.

Idaho Power representatives have been, and continue to be, fully engaged with the operating partner, PacifiCorp, to provide a thorough review of the costs and benefits associated with the installation of the Bridger SCRs according to the provisions of the Operating Agreement.

Q. Please describe the interactions that have been taking place between the Company and the operating partner, PacifiCorp, in regard to the SCR project.

A. The Company and PacifiCorp have been discussing the Regional Haze regulations and their impact on the Jim Bridger Plant since the EPA promulgated the Regional Haze Rules (40 CFR Part 51) in 1999. Most recently, senior officers of Idaho Power and PacifiCorp met at the Jim Bridger Plant, discussed the SCR approval process and contemplated the provisions to be included in a "Limited Notice to Proceed" for the Engineering, Procurement, and Construction ("EPC") contract. A subsequent meeting between Company representatives and PacifiCorp occurred to review the SCR procurement process, bidders, drawings, evaluations and recommendations on the

EPC contract. PacifiCorp and the Company continue to have communications on the SCR project.

Q. How will the investment in the SCRs impact the economic viability of the Jim Bridger Plant as compared to other resource alternatives?

A. To determine the economic viability of installing the Bridger SCRs, Idaho Power prepared the Coal Unit Environmental Investment Analysis ("Coal Study") which is included as Exhibit Nos. 5 and 6 to Mr. Harvey's testimony. The Coal Study analyzed the SCR investment at Jim Bridger Units 3 and 4 as part of a larger analysis conducted for all four units at the Jim Bridger Plant and the two units at the Valmy plant.

The methodology used in the Coal Study examined future investments required or reasonably anticipated for environmental compliance for the existing coal units. Those investments were then compared to the costs of two alternatives: (1) replace such units with combined-cycle combustion turbines or (2) convert the existing coal-fired units to natural gas. For the complete evaluation, Idaho Power used a combination of third-party analysis, input from the operating partners of each coal plant, and a final economic dispatch analysis conducted by the Company to assure a complete and fair assessment of the alternatives.

Q. Do you believe the Coal Study results support retrofitting Jim Bridger Units 3 and 4 with SCRs?

A. Yes. As outlined in greater detail in Mr. Harvey's testimony, the Coal Study supports retrofitting Jim Bridger Units 3 and 4 with emissions control equipment to allow ongoing coal-fueled energy production from this facility through the study period as the least-cost, adjusted for risk, outcome for customers.

IV. CPCN AND RATEMAKING TREATMENT

Q. Why is the Company requesting a CPCN and binding ratemaking treatment under *Idaho Code* § 61-541 at this time?

A. The Company is requesting a CPCN and binding ratemaking treatment under *Idaho Code* § 61-541 for the SCR investment because of the magnitude of the investment, the uncertainty surrounding coal-fired generation in today's political and social environment, and the amount of interest expressed by stakeholders. With the magnitude of the investment and the changing climate for investments in coal-fired generation, the Company has chosen to request a CPCN even though it does not believe it is required to do so by *Idaho Code* § 61-526. In this way, a public process is initiated to provide the Company, Commission, and interested parties a regulatory forum to fully vet these contested issues.

Q. Please explain further what you mean by "today's political and social environment."

A. The political uncertainty surrounding the ongoing operation of coal-fired resources has been a reality for many years now, complete with discussion about cap and trade legislation, addition of a carbon tax, etc. The Company has experienced a number of events in recent years that attest to the heightened sensitivity to the issues surrounding coal-fired generation. For example, in the Company's last general rate case in Oregon, the Citizens' Utility Board of Oregon objected to the Company's proposal to recover a prior investment in Jim Bridger Plant pollution control equipment. Over a year later, even though the Public Utility Commission of Oregon ("OPUC") found that the Company's $400,000 investment in environmental controls **was not imprudent nor caused harm to Oregon customers**, the OPUC stated on page 7 of Order No. 13-132 that the Company "failed to exercise the reasonable standard of care" they expected utilities to exercise as co-owners of a generation facility. Thus, to ensure future compliance with that standard, the OPUC found that a one-time disallowance to management expense equivalent to 10 percent of the Oregon portion of the investment was appropriate.

Q. What are other experiences the Company has had that indicate a changing political and social environment regarding coal-fired generation?

A. In its review of the Company's 2011 IRP filing in Oregon, the OPUC would not acknowledge any IRP provision relating to new investments in coal plants until the Company completed a study of its coal investment compliance costs and other parties had the opportunity to comment on the study. In Order No. 12-177, the OPUC directed Idaho Power to complete an evaluation of environmental compliance costs for existing coal-fired plants. Action Item 11 in Appendix A of Order No. 12-177 stated:

> In its next IRP Update, Idaho Power will include an Evaluation of Environmental Compliance Costs for Existing Coal-fired Plants. The Evaluation will investigate whether there is flexibility in the emerging environmental regulations that would allow the Company to avoid early compliance costs by offering to shut down individual units prior to the end of their useful lives. The Company will also conduct further plant specific analysis to determine whether this tradeoff would be in the ratepayers' interest.

Recently, when the Company filed an informational copy of its 2011 IRP Update with the Commission under Docket No. IPC-E-11-11, environmental groups expressed concern regarding the use of coal-fired power generation by Idaho's regulated electric utilities and plans by those

utilities to make significant investments in the coal plants to keep them in compliance with state and federal regulations. These groups believed a rigorous review and public evaluation of additional coal plant investment should occur, and even suggested a CPCN proceeding.

Q. During the Company's development of the 2013 IRP, were there other indications of the changing social and political concerns with regard to coal-fired generation?

A. Yes. Over the course of a year, the Company involved representatives of the public in the resource planning process. On a monthly basis, the Company met with members of the Integrated Resource Plan Advisory Council ("IRPAC"), which included representatives from the political, environmental, and customer sectors, as well as representatives of other public-interest groups. The IRPAC actively participated throughout the resource planning process. Members of the IRPAC representing the Idaho Conservation League and Boise State University suggested an additional resource portfolio which eliminated the Company's involvement in all of its coal-fired generation plants be included and analyzed as part of the 2013 IRP.

In addition to the resource portfolio suggested by the IRPAC members representing the Idaho Conservation League and Boise State University, Idaho Power developed a

resource portfolio that was derived from the study of the Idaho Power coal investment compliance costs. The resource portfolio was also analyzed as part of the 2013 IRP.

During the development of the 2013 IRP, NV Energy announced its intention to remove coal from its portfolio. Idaho Power is a one-half owner of Valmy and NV Energy is the operating partner. As a result of that announcement, Idaho Power included two additional resource portfolios designed to estimate the effects of closing Valmy. The 2013 IRP is included as Attachment 4 to the Application filed contemporaneously with this direct testimony.

Q. What were the results of the IRP's analysis of the four coal-replacement scenarios?

A. The IRP's analysis supported the Coal Study in that the coal-retirement portfolios are not the least cost alternatives. The cost to replace the coal resources is simply too high.

Q. Are emission control investments at Valmy part of the Company's current CPCN request?

A. No. While the Valmy plant is not a part of the Company's request for a CPCN for the SCR investments at Jim Bridger Units 3 and 4, the Nevada legislation associated with NV Energy's announcement is yet another indication of the changing climate with regard to coal-fired generation.

Q. Do you believe that the installation of the Bridger SCRs represents a prudent investment that is in the best interests of the Company and its customers?

A. Yes, I do. As supported by the comprehensive analyses presented in this case, the investment in the Bridger SCRs represents the lowest cost and least risk option of serving future customer demands. The SCR investment will allow the Jim Bridger Plant, the Company's lowest cost thermal generation resource, to continue providing customers with reliable energy and will maintain the Company's diverse portfolio of generation resources.

Q. Does this conclude your direct testimony in this case?

A. Yes, it does.